

Appln. No. 09/599,150

Docket No. 22-0133

REMARKS

In the aforementioned Office action, claims 1-22 were rejected as unpatentable under 35 U.S.C. §103(a). The claims have been amended to define the invention more clearly over the cited art, as further discussed below.

In section 1 of the Office action, the drawings were objected to under 37 C.F.R. 1.83(a). Replacement drawings (facsimile copies) are transmitted with this amendment and original replacement drawings are being transmitted by first class mail, as discussed in the Amendments to the Drawings section above.

In section 2 of the Office action, the specification was objected to because the cross-references (on pages 1 and 25) to related applications were incomplete. The specification has been amended to update the missing information identifying the cross-referenced applications.

In section 4 of the Office action, claims 1-6, 9, 11-14 and 17-21 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Dent (US 6,377,558) in view of Peyrovian (US Appln. 2002/0005671). The essence of the Examiner's comments accompanying the rejection is that the "self addressed packet switch" of claim 1 "is taught as part of steps 182 and 184" (of Figure 13 of Dent), that the "switch" of claim 1 "is taught as part of step 186," and that the final "wherein" clause of claim 1 "is taught as part of steps 188 and 190."

The Examiner's suggestion that there may be an issue concerning Applicant's claim to "the uplink data destined for at least one of a first and a second downlink beam hop location," is rendered moot by the present amendment, which recites that data packets are destined to multiple downlink beam hop locations."

Appln. No. 09/599,150

Docket No. 22-0133


The Dent disclosure is concerned with reducing signal intermodulation in a phased array antenna. Because Dent is specifically concerned with phased array antennas, his selection of beam hop locations is severely limited by the restriction that two beam spots in a single beam "fan" cannot be simultaneously selected as downlink beam hop locations. This is evident, for example, from Fig. 10c, which shows a "disallowed" case where two directions (c and f) are selected for fan no. 1. The present invention, as disclosed and claimed, employs a separate radiating element for each downlink beam, so that the downlink hop locations may be assigned independently of rows or columns corresponding a beam fan.

Claim 1 has been amended to emphasize these distinctions and is believed to be patentable over Dent. The other independent claims, i.e., claims 9 and 17, have been similarly amended. Other claims have been amended for consistency and claim 6 has been cancelled.

In view of the foregoing remarks, Applicant respectfully requests reconsideration and reexamination of claims 1-5 and 7-22, which are now all believed to define patentable subject matter.

Respectfully submitted,

Date: February 11, 2004


Noel F. Heal
Registration No. 26,074

Northrop Grumman Space Technology
One Space Park, E1/2041
Redondo Beach, CA 90278
Telephone: (310) 812-4910
FAX: (310) 812-2687